



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION
NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

Greenheck Fan Corporation
P. O. Box 410.
Schofield, WI 54476

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Model EVH-501D Aluminum Louver

APPROVAL DOCUMENT: Drawing No. EVH-501D, titled "EVH-501D", sheets 1 through 9 of 9, dated 04/01/2015, prepared by the manufacturer, signed and sealed by Chander P. Nangia, P.E., bearing the Miami-Dade County Product Control approval stamp with the NOA number and approval date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, Schofield, WI or Frankfort, KY, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA consists of this page 1 and evidence page E-1, as well as approval document mentioned above. The submitted documentation was reviewed by Carlos M. Utrera, P.E.



Carlos M. Utrera
07/28/2015

NOA No. 15-0415.05
Expiration Date: August 6, 2020
Approval Date: August 6, 2015
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **EVH-501D**, titled "EVH-501D", sheets 1 through 9 of 9, dated 04/01/2015, prepared by the manufacturer, signed and sealed by Chander P. Nangia, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of Model EVH-501D Aluminum Vertical Louvers, prepared by Intertek/Architectural Testing, Inc, Report No. **E4766.02-602-18**, dated 03/13/2015, signed and sealed by Shawn G. Collins, P.E.
2. Test Report on High Velocity Wind Driven Rain Resistance per AMCA 550-09 of a Model EVH-501D Aluminum Vertical Louver, prepared by Intertek/Architectural Testing, Inc, Test Report No. **E4766.01-602-44**, dated 02/06/2015, signed and sealed by Shawn G. Collins, P.E.

C. CALCULATIONS

1. Structural load calculations prepared by Greenheck Fan Corporation, dated 04/01/2015, signed and sealed by Chander P. Nangia, P.E.

D. QUALITY ASSURANCE


1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

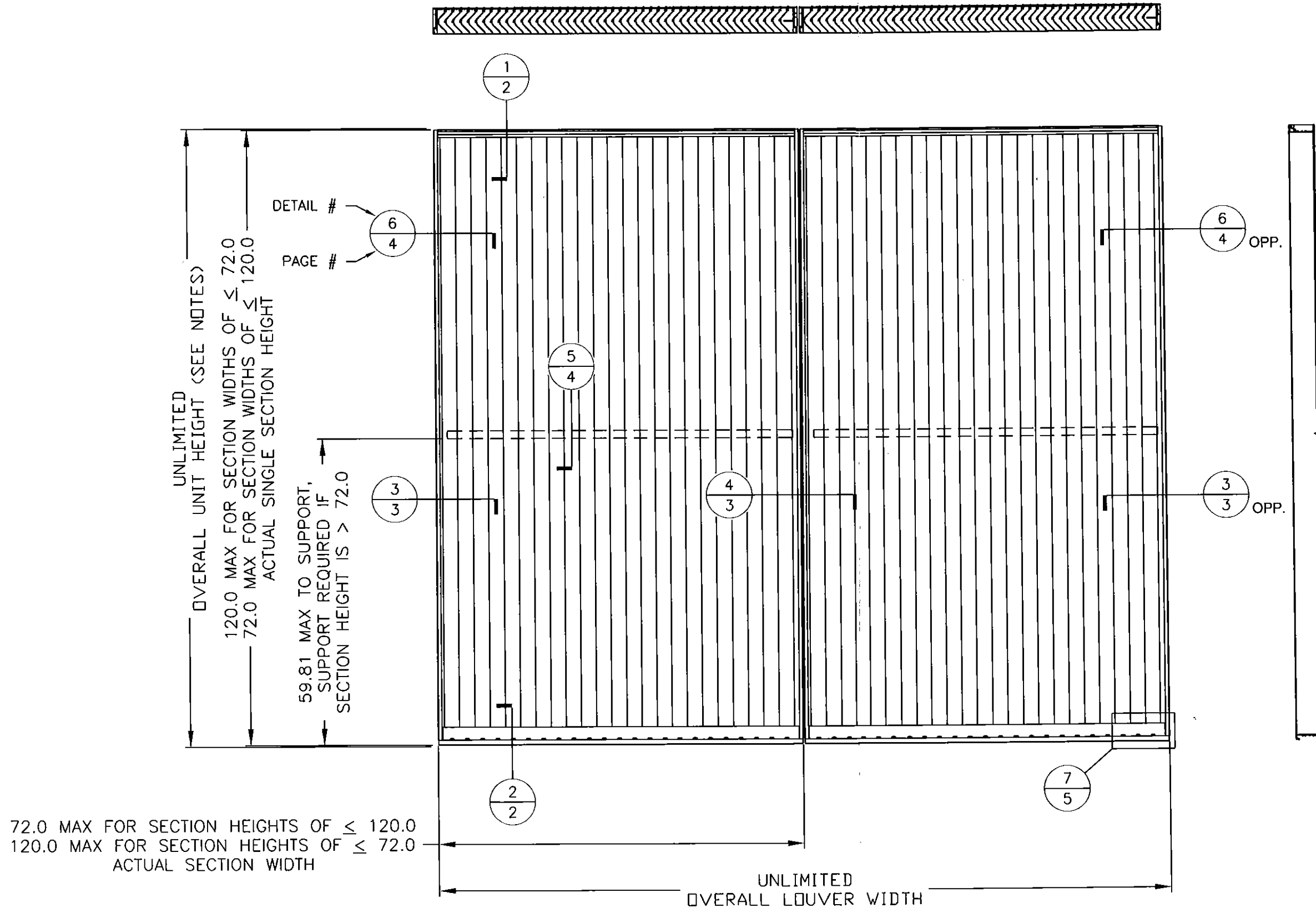
1. None.

F. STATEMENTS

1. Statement letter of code conformance to the 5th edition (2014) FBC issued by Chander P. Nangia, P.E., dated 06/12/2015, signed and sealed by Chander P. Nangia, P.E.
2. No financial interest letter issued by Chander P. Nangia, P.E., dated 04/06/2015, signed and sealed by Chander P. Nangia, P.E.


07/28/2015

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 15-0415.05
Expiration Date: August 6, 2020
Approval Date: August 6, 2015



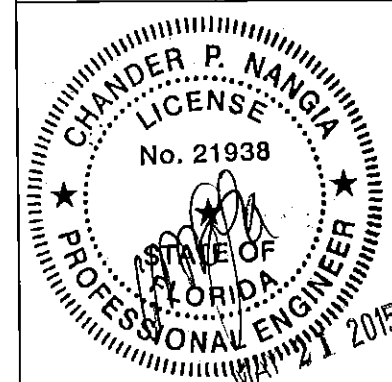
NOTES:

- SINGLE-WIDE BY MULTI-HIGH ASSEMBLIES ARE PERMITTED AS LONG AS EACH SECTION'S HEIGHT/WIDTH ARE WITHIN THE ALLOWABLE MAXIMUMS, AND HEAD/SILL MOUNTING IS FOLLOWED AS SHOWN HEREIN.
- MULTI-WIDE BY SINGLE-HIGH ASSEMBLIES ARE PERMITTED AS LONG AS EACH SECTION'S HEIGHT/WIDTH ARE WITHIN THE ALLOWABLE MAXIMUMS, AND HEAD/SILL MOUNTING IS FOLLOWED AS SHOWN HEREIN. MULLION SPACING IS 72.25 MAX ON CENTER.
- MULTI-WIDE BY MULTI-HIGH ASSEMBLIES ARE PERMITTED AS LONG AS THE ABOVE TWO NOTES ARE FOLLOWED, AND THERE IS SUITABLE LOAD-BEARING STRUCTURE (BY OTHERS) AT EACH SECTION'S HEAD/SILL LOCATION AND HEAD/SILL MOUNTING IS FOLLOWED AS SHOWN HEREIN.

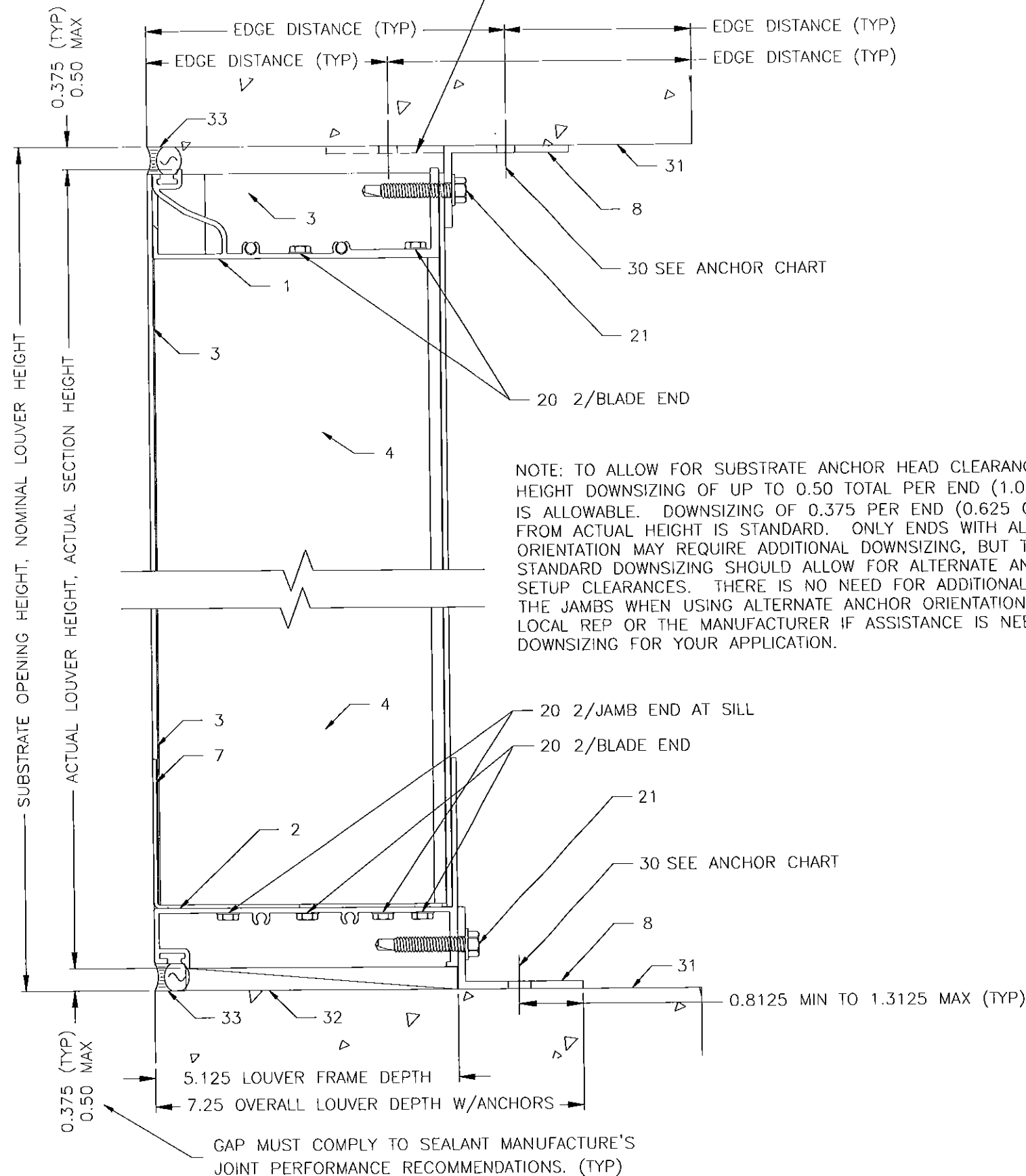
DRAWN BY	MES	DATE	4/1/15
SCALE			
SHEET NO.	1 OF 9		
CAD DRAWING NO.	EVH-501D		

GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	EVH-501D NOA DRAWINGS ELEVATION
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Approved as complying with the
Florida Building Code
Date 08/06/2015
NOA# 15-0415.05
Miami Data Product Control
By [Signature]

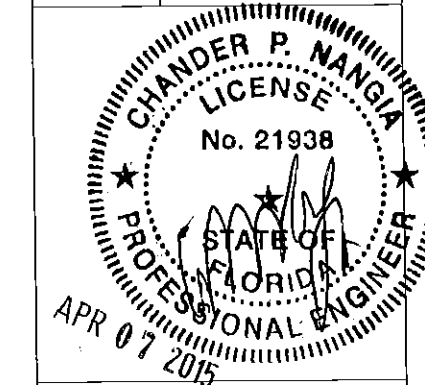


ALTERNATE ORIENTATION OF ITEM 8, HEAD OR SILL, SEE DOWNSIZING NOTE

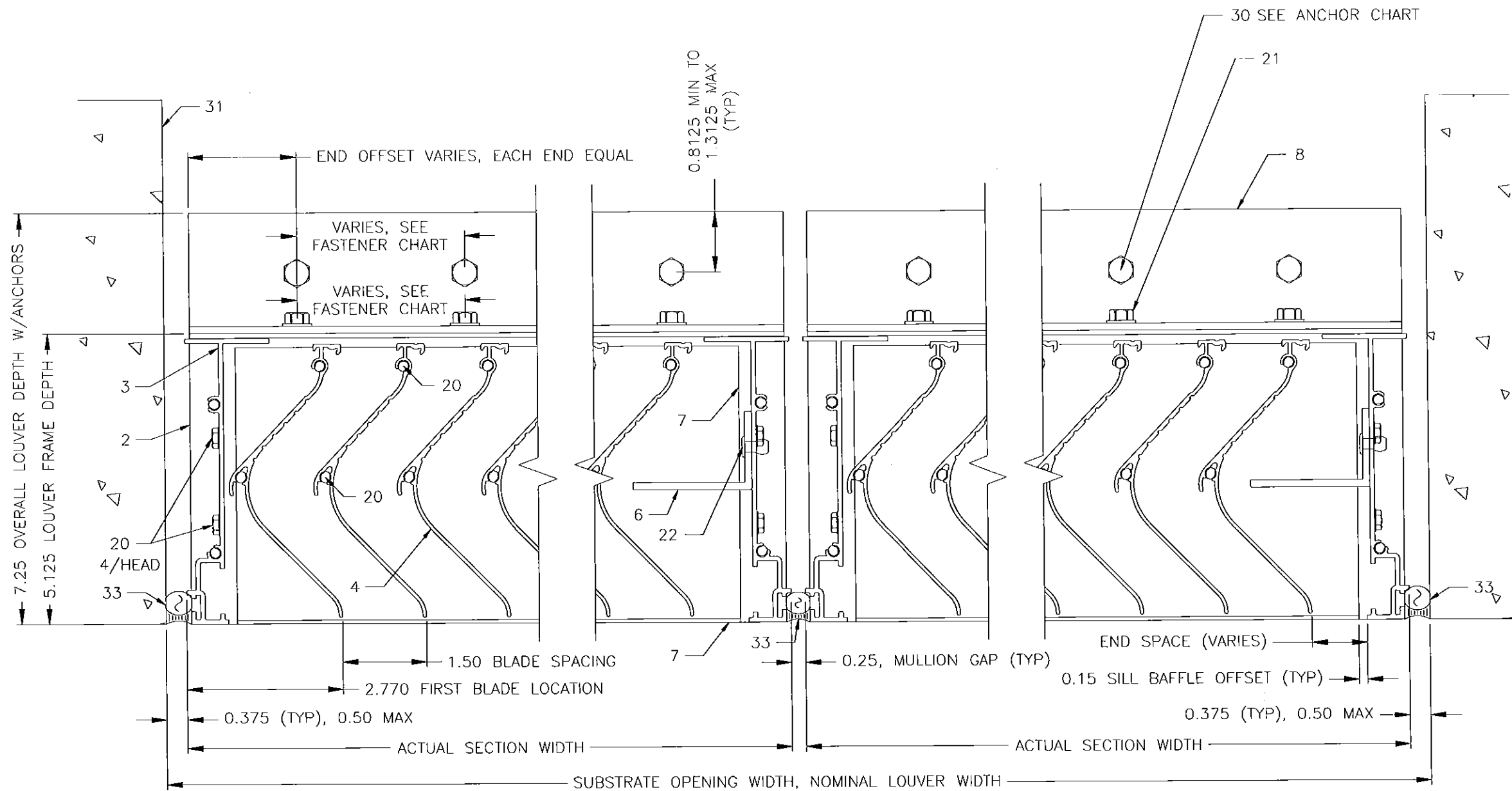


DRAWN BY	MES	DATE	4/1/15
SCALE			
SHEET NO.	2 OF 9		
CAD DRAWING NO.	EVH-501D		

GREENHECK	P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410
EVH-501D	NOA DRAWINGS
	DETAILS



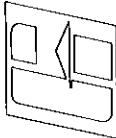
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 Date 08/06/2015
 NOA 15-0415.05
 Miami Dade Product Control
 By [Signature]

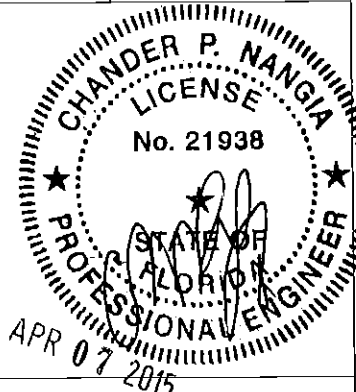



3 3 JAMB DETAIL

4 3 MULLION DETAIL

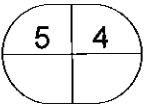
3 3 JAMB DETAIL (OPP)

	DRAWN BY MES	DATE 4/1/15
	SCALE	SHEET NO. 3 OF 9
TITLE EVH-501D NOA DRAWINGS DETAILS		
CAD DRAWING NO. EVH-501D		

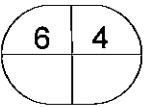
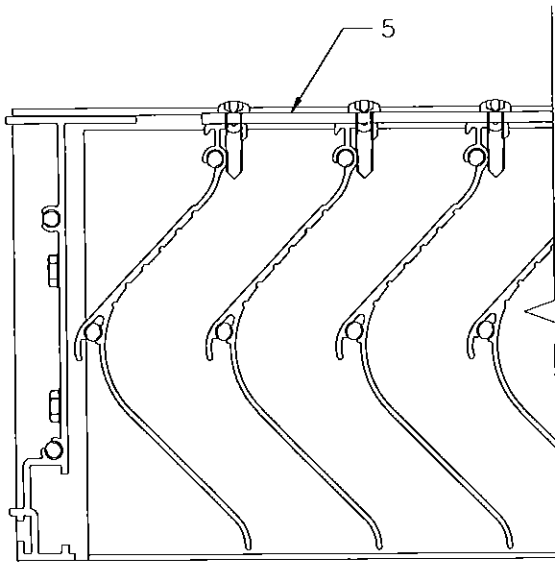
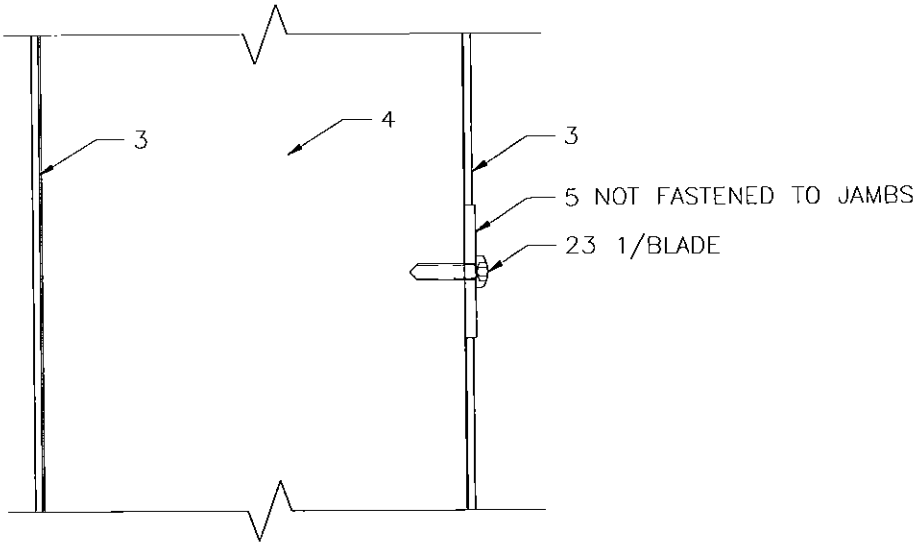


Approved as complying with the
 Florida Building Code
 Date **08/06/2015**
 NOA# **15-0415 DS**
 Miami Dade Product Control
 By 

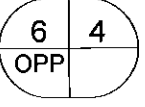
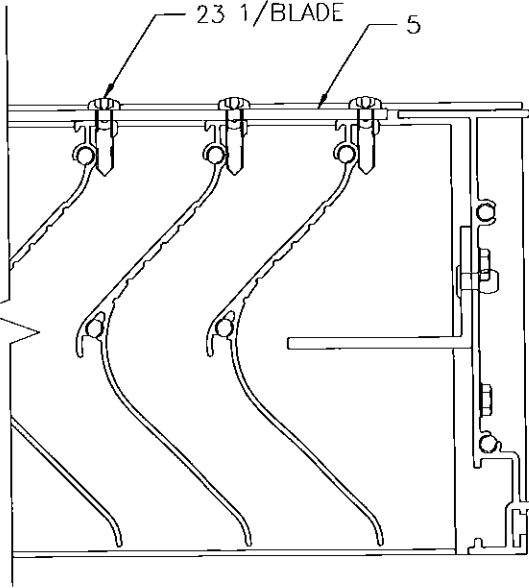
THIS PAGE DEPICTS DETAILS OF THE SUPPORT STRAP ONLY, SEE PAGE D2 FOR OTHER ITEMS



BLADE STRAP DETAIL
WHEN SECTION HEIGHT > 72.0"




BLADE STRAP AT JAMB DETAIL
WHEN SECTION HEIGHT > 72.0"



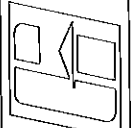
BLADE STRAP AT JAMB DETAIL (OPP)
WHEN SECTION HEIGHT > 72.0"

DRAWN BY MES	DATE 4/1/15
SCALE	
SHEET NO. 4 OF 9	
CAD DRAWING NO. EVH-501D	

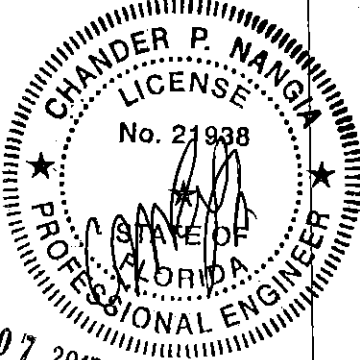


P.O. BOX 410 SCHOFIELD,
WISCONSIN 54476-0410

EVH-501D
NOA DRAWINGS
DETAILS




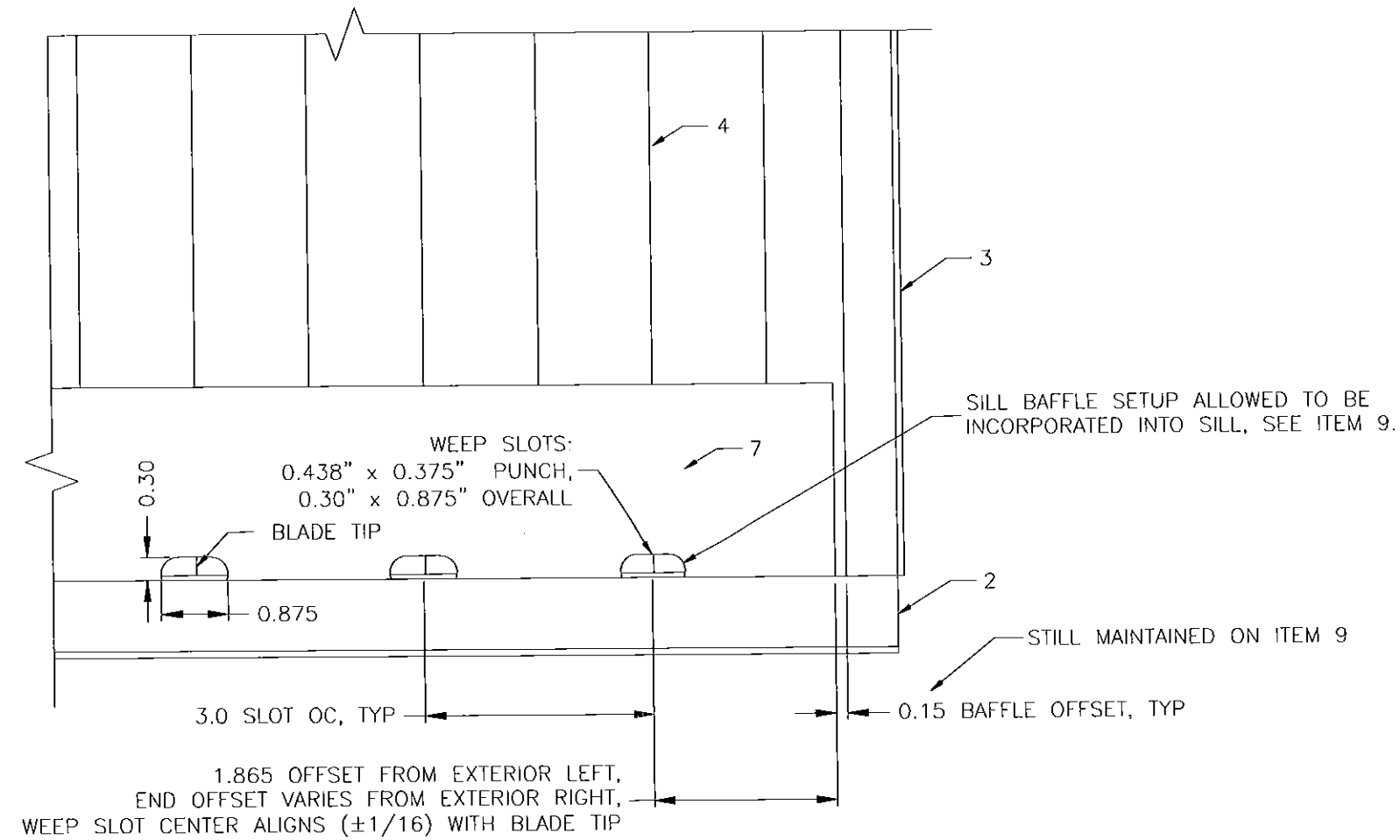
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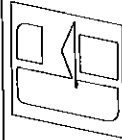
CHANDER P. NANGIA
LICENSE
No. 21938
STATE OF FLORIDA
PROFESSIONAL ENGINEER

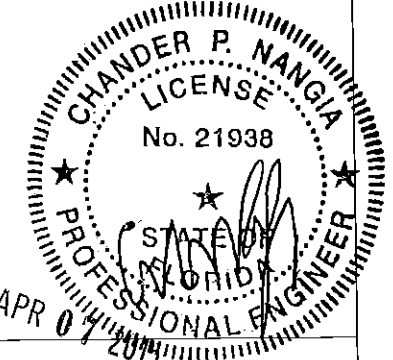
APR 07 2015

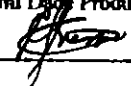
Approved as complying with the
Florida Building Code
Date 08/06/2015
NOAH 15-0415.05
Miami Dade Product Control
By 

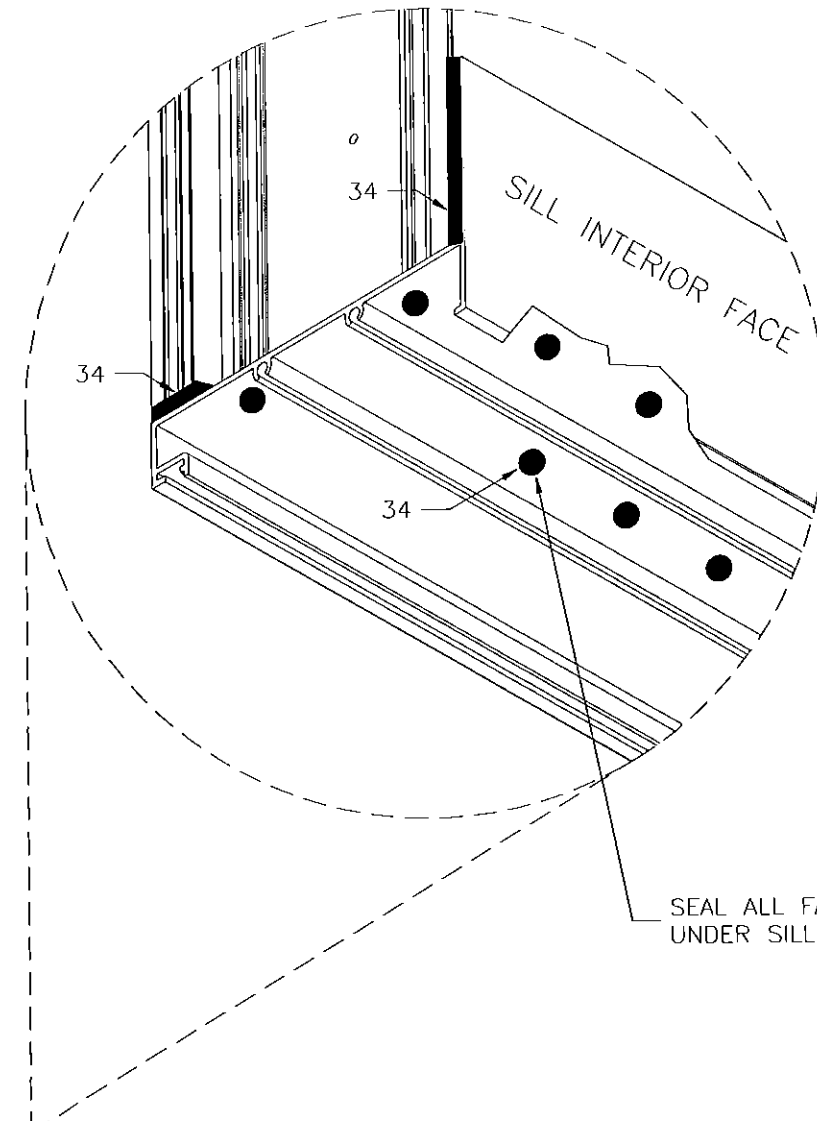
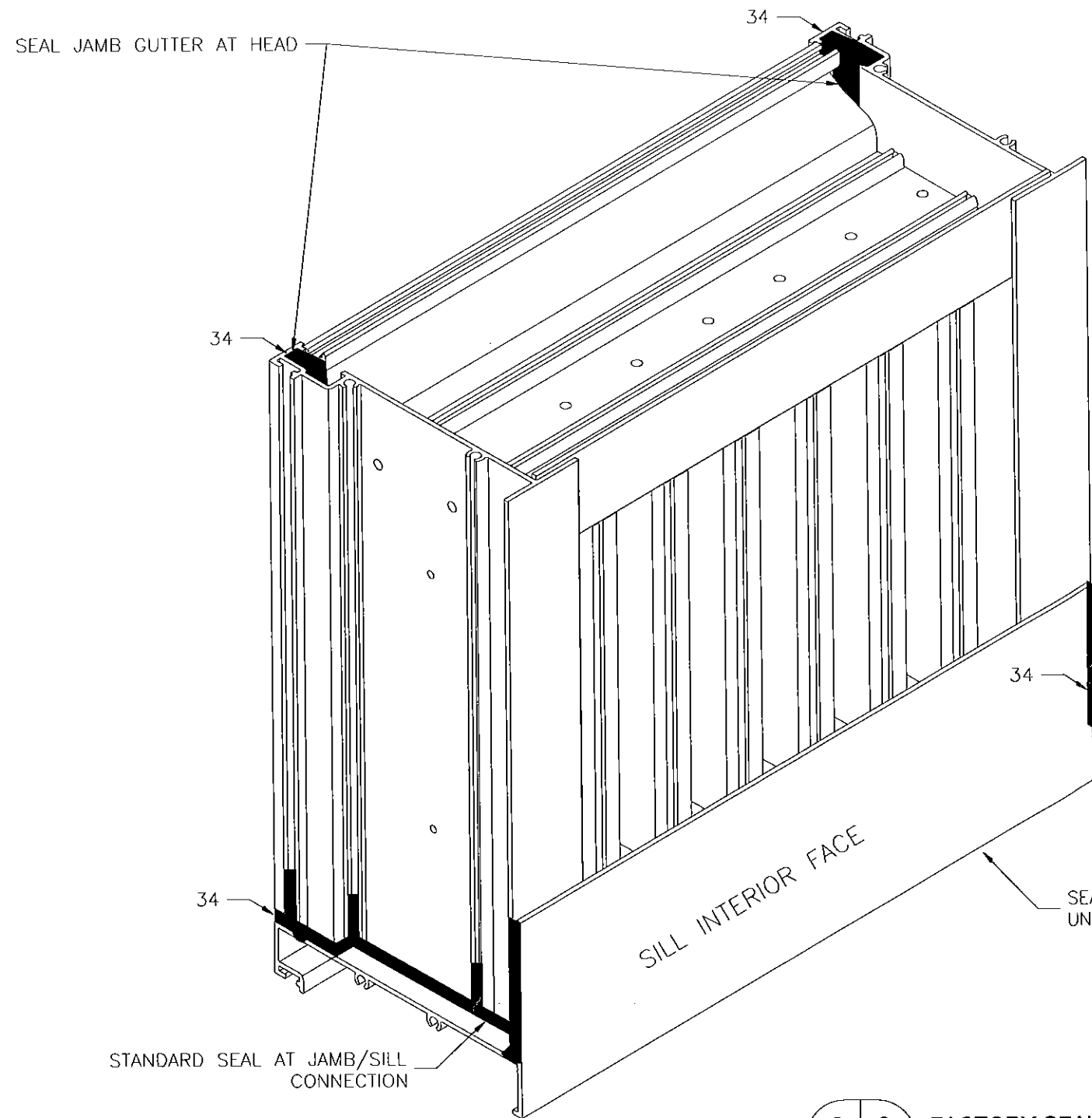


7 5 BAFFLE/WEEP DETAIL

 GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	DRAWN BY MES	DATE 4/1/15
	SCALE	SHEET NO. 5 OF 9
TITLE EVH-501D NOA DRAWINGS DETAILS		CAD DRAWING NO. EVH-501D


 CHANDER P. NANGIA
 LICENSE
 No. 21938
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 APR 07 2015

Approved as complying with the
 Florida Building Code
 Date 08/06/2015
 NOA# 15-0415-05
 Miami Dade Product Control
 By 



SEAL ALL FASTENERS UNDER SILL PER CHART

8 6 FACTORY SEALING DETAIL

DRAWN BY MES	DATE 4/1/15
SCALE	
SHEET NO. 6 OF 9	
CAD DRAWING NO. EVH-501D	

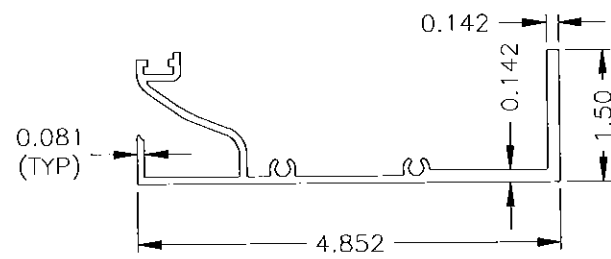
GREENHECK
P.O. BOX 410 SCHOFIELD,
WISCONSIN 54476-0410

EVH-501D
NOA DRAWINGS
DETAILS

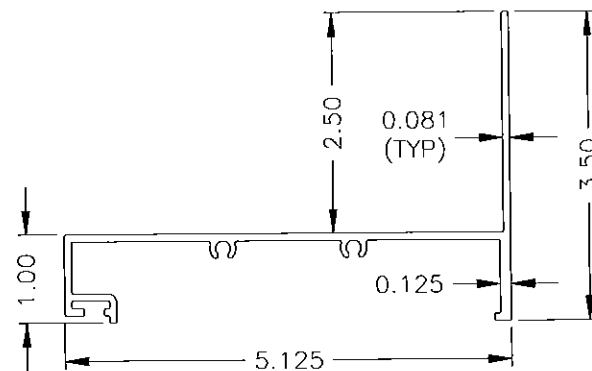
TITLE

CHANDER P. NANGIA
LICENSE
No. 21938
PROFESSIONAL ENGINEER
STATE OF FLORIDA
APR 07 2015

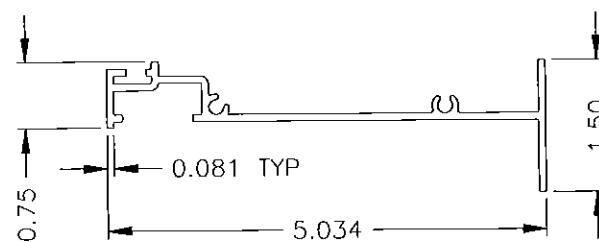
Approved as complying with the
Florida Building Code
Date 06/06/2015
NOA# 15-0415.05
Miami Dade Product Control
By [Signature]



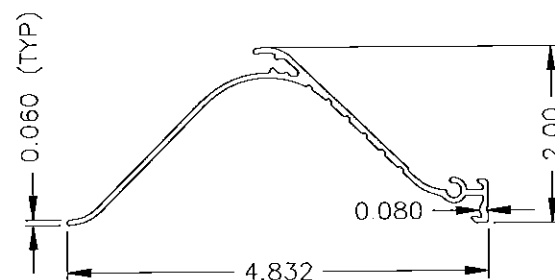
① HEAD
6005-T5 ALUMINUM



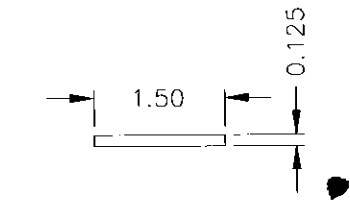
② SILL
6005-T5 ALUMINUM



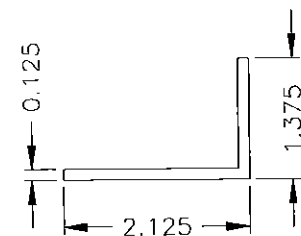
③ JAMB
6063-T5 ALUMINUM



④ BLADE
6063-T5 ALUMINUM

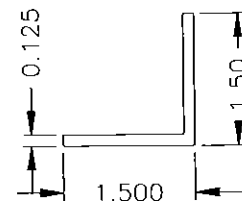


⑤ BLADE SUPPORT STRAP
6063-T5 ALUMINUM



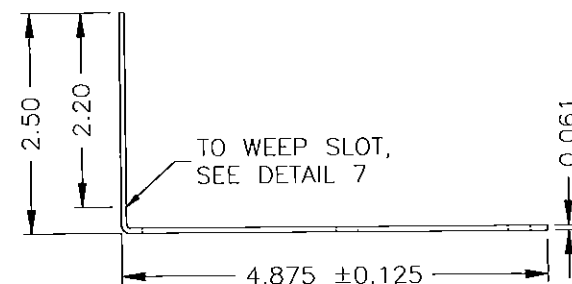
ONLY USED IF ENDSPACE IS > 0.681"

⑥A JAMB BLANKOFF ANGLE
6063-T5 ALUMINUM

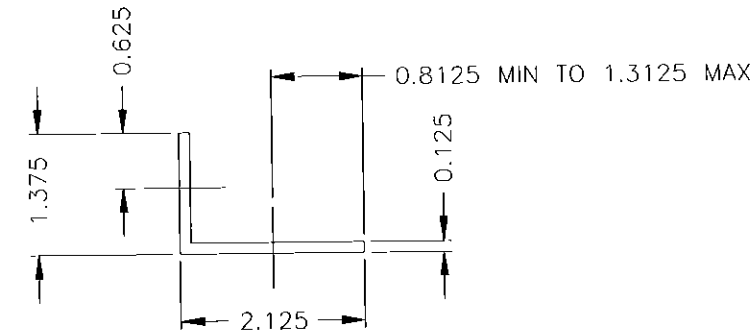


ONLY USED IF ENDSPACE IS ≤ 0.681"

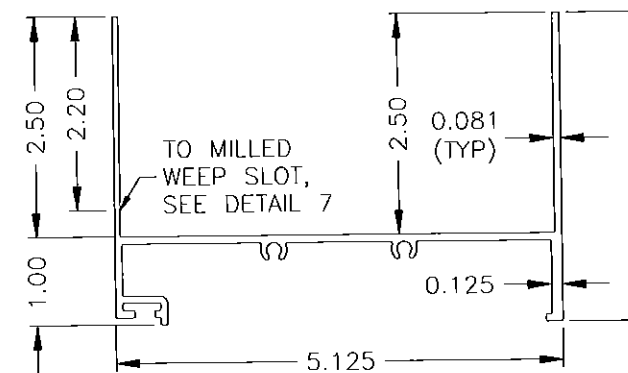
⑥B JAMB BLANKOFF ANGLE
6063-T5 ALUMINUM



⑦ SILL BAFFLE
5052-H32 ALUMINUM SHEET OR 6063-T5 EXTRUSION



⑧ CONTINUOUS MOUNTING ANGLE
6061-T6 ALUMINUM



⑨ COMBINATION SILL WITH BAFFLE
6005-T5 ALUMINUM

DRAWN BY MES	DATE 4/1/15	SHEET NO. 7 OF 9	CAD DRAWING NO. EVH-501D
	SCALE		
GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410		EVH-501D NOA DRAWINGS PART PROFILES	
TITLE EVH-501D			
Approved as complying with the Florida Building Code Date 08/06/2015 NOA# 15-0415.05 Miami Dade Product Control By			

ITEM	DESCRIPTION	MATERIAL	INTERNAL ID#	NOTES
1	HEAD	6005-T5 ALUM	126069	
2	SILL	6005-T5 ALUM	126070	
3	JAMB	6063-T5 ALUM	126015	
4	BLADE	6063-T5 ALUM	126016	1.5" CENTERS/SPACING
5	BLADE SUPPORT STRAP	6063-T5 ALUM	130311	REQUIRED IF SECTION HEIGHT IS > 72.0", NOT FASTENED TO JAMBS
6	JAMB BLANKOFF ANGLE	6063-T5 ALUM	125151 OR 125967	ONLY ON RIGHT JAMB (FROM EXTERIOR VIEW)
7	SILL BAFFLE	5052-H32 ALUM	NA	EXTRUDED ANGLE ALLOWED
8	CONTINUOUS MOUNTING ANGLE	6061-T6 ALUM	125967	AT HEAD AND SILL ONLY
9	COMBINATION SILL WITH BAFFLE	6005-T5 ALUM	NA	ALLOWED TO REPLACE ITEMS 2 AND 7
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20	#10-16 x 2.25" SCREW	300 SERIES SS	416351	AT FRAME CORNERS AND BLADE ENDS
21	1/4-20 x 1.5" SCREW, HILTI KWIK FLEX, PROVIDED BY LOUVER MANUFACTURER	COATED STEEL	416581	5.0" MAX CENTERS IF SECTION HEIGHT IS ≤ 72" 3.0" MAX CENTERS IF SECTION HEIGHT IS ≤ 120"
22	3/16" Ø RIVET	300 SERIES SS	416588	ONLY ON ITEM 6 AT 8" MAX CENTERS
23	#10-16 x 0.75" SCREW	300 SERIES SS	416108	ONLY ON ITEM 5, ONE PER BLADE
--	--	--	--	--
30	SUBSTRATE FASTENER, SEE ANCHOR CHART	300/400 SS, OR COATED STEEL	NA	BY OTHERS, MINIMUM OF ONE TYPE REQUIRED, SEE ANCHOR CHART FOR ADDITIONAL DETAILS
31	SUBSTRATE, GROUT FILLED CMU	GROUT FILLED CMU	NA	BY OTHERS, MINIMUM OF ONE TYPE REQUIRED, SEE ANCHOR CHART FOR ADDITIONAL DETAILS
	SUBSTRATE, CONCRETE	CONCRETE		
	SUBSTRATE, STEEL STUD	STEEL		
	SUBSTRATE, STRUCTURAL STEEL	STEEL		
	SUBSTRATE, WOOD	WOOD		
	SUBSTRATE, ALUMINUM	ALUMINUM		
32	SHIM, NON-COMPRESSIBLE	VARIOUS	-	BY OTHERS, OPTIONAL, AS NEEDED
33	SEALANT & BACKER ROD	VARIOUS	-	BY OTHERS, REQUIRED TO PASS AMCA 550
34	SEALANT, FACTORY APPLIED	VARIOUS	NA	FACTORY APPLIED

GENERAL NOTES:

- IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVER ASSEMBLY. THE LOUVER MANUFACTURER DOES NOT DETERMINE THE STRUCTURAL INTEGRITY OF THE SUBSTRATE STRUCTURE.
- THIS LOUVER HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH MIAMI-DADE COUNTY PROTOCOLS [AND QUALIFIED IN ACCORDANCE WITH THE CURRENT FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS/STANDARDS]:

TAS-201 (LARGE MISSILE IMPACT TEST)
 TAS-202 (UNIFORM STATIC WIND PRESSURE TEST)
 TAS-203 (UNIFORM CYCLIC WIND PRESSURE TEST)
 ANSI/AMCA STANDARD 550 (HIGH VELOCITY WIND DRIVEN RAIN TEST)
- THIS LOUVER HAS BEEN DESIGNED, TESTED, AND APPROVED TO WITHSTAND DESIGN PRESSURES OF UP TO AND INCLUDING +/-130 PSF.
- DUE TO PASSING ANSI/AMCA STANDARD 550, THE LOUVER IS DESIGNED TO PREVENT WIND DRIVEN RAIN FROM PENETRATING THE SPACE BEHIND THE LOUVER. AS SUCH, THE LOUVER MAY BE INSTALLED IN A LOCATION WHERE THE SPACE/ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT/PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
- THE MAXIMUM SINGLE SECTION SIZE IS 120 WIDE BY 72 HIGH OR 72 WIDE BY 120 HIGH. THE MAXIMUM OVERALL/ASSEMBLED SIZE IS UNLIMITED WIDE BY USE OF MULTIPLE SECTIONS. SECTIONS/ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDED THERE IS SUITABLE STRUCTURAL SUPPORT (DESIGNED AND INSTALLED BY OTHERS) TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER HEAD AND/OR SILL MOUNTING ANGLES TO THE SUBSTRATE.

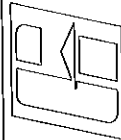
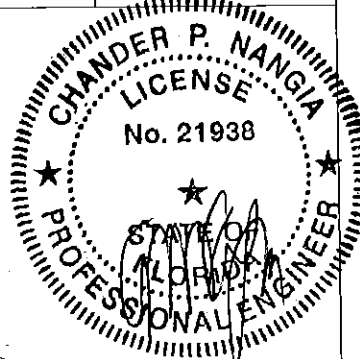
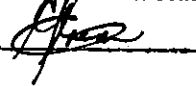
6. GENERAL LOUVER CONSTRUCTION: HEAD, SILL, JAMBS, AND BLADES ARE EXTRUDED ALUMINUM. BLADE SPACING IS 1.5 INCHES. BLADES ARE SECURED TO THE HEAD/SILL WITH (2) SCREWS PER BLADE END. HEAD IS SECURED TO THE JAMB WITH (2) SCREWS PER HEAD END. SILL IS SECURED TO THE JAMB WITH (2) SCREWS PER SILL END. BLADE SUPPORT STRAP IS SECURED TO BLADES BY (1) SCREW PER BLADE. BLADE SUPPORT STRAP IS REQUIRED IF ACTUAL LOUVER HEIGHT IS > 72 INCHES.

7. INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED. SEE FL BLDG CODE SECTION 2003.8.4 FOR DETAILS.

8. ALL ALUMINUM, STAINLESS STEEL (SS), AND PLATED/COATED STEEL PARTS PROVIDED BY MANUFACTURER ARE INHERENTLY CORROSION RESISTANT OR HAVE A CORROSION RESISTANT COATING.

9. STEEL/STANLESS STEEL/ALUMINUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THAT HAS EQUAL OR GREATER YIELD STRENGTH. PART DIMENSIONS ARE MINIMUMS UNLESS DEFINED OTHERWISE.

10. THE INTERNAL ID# SHOWN ON PAGE 8 IS FOR FACTORY USE AND TRACKING PURPOSES ONLY AND MAY BE UPDATED AT ANY TIME. ANY UPDATES WILL NOT ALTER THE ITEM AS DESCRIBED HEREIN.

DRAWN BY MES	DATE 4/1/15	SCALE 	SHEET NO. 8 OF 9	CAD DRAWING NO. EVH-501D
GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410		EVH-501D NOA DRAWINGS ITEM DESCRIPTIONS & GENERAL NOTES		
		TITLE		
<div>  </div>				
APR 07 2015				
Approved as complying with the Florida Building Code Date 08/06/2015 NOA# 15-0415-03 Miami Dade Product Control By 				

ITEM 31, SUBSTRATE			ITEM 30, SUBSTRATE FASTENER																																																																																																																									
TYPE	MATERIAL MIN.	THICKNESS MIN.	TYPE (ALL FASTENERS ARE HEX HEAD STYLE)	MAT'L	DIA.	HEIGHT MAX.	SPACING MAX.	EDGE MIN.	EMBED. MIN.	WASHER/FLANGE MIN.	ANGLE HOLE MAX	SUBSTRATE HOLE, MAX.																																																																																																																
WOOD	G OF 0.42	3	LAG SCREW	**	1/4	72 120	6 3 *	1 1/2	2 7/8	NA	1/4	SEE FASTENER MANUFACTURER INSTRUCTIONS																																																																																																																
STEEL	A36	16 GA	BOLT W/ NUT OR THREAD CUTTING/TAPPING SCREW	**	1/4-20	72	6	3/4	SHOWN GAGE VALUE	NA	5/16	5/16, FOR USE WITH NUT CONNECTION ONLY																																																																																																																
						120	3 *																																																																																																																					
		14 GA			3/8-16	72	9	1			13/32	3/8, FOR USE WITH NUT CONNECTION ONLY																																																																																																																
						120	6																																																																																																																					
ALUMINUM	6063-T5	1/8	BOLT W/ NUT OR THREAD CUTTING/TAPPING SCREW	**	1/4-20	72 120	6 3 *	1/2	1/8	NA	5/16	1/4																																																																																																																
CONCRETE	VARIES WITH SIZE OF FASTENER USED, SEE FASTENER MANUFACTURER INSTRUCTIONS		BUILDEX TAPCON (BLUE, WHITE, OR 410 SS) ELCO AGGRE-GATOR ELCO ULTRACON SS4 ELCO CRETE-FLEX SS4, SMALL HEAD ELCO CRETE-FLEX SS4, FLANGED HEAD POWERS 316 STAINLESS STEEL WEDGE-BOLT POWERS WEDGE-BOLT PLUS BUILDEX TAPCON (BLUE, WHITE, OR 410 SS) BUILDEX TAPCON (BLUE, WHITE, OR 410 SS) ELCO AGGRE-GATOR ELCO ULTRACON SS4 ELCO CRETE-FLEX SS4, SMALL HEAD ELCO CRETE-FLEX SS4, FLANGED HEAD POWERS 316 STAINLESS STEEL WEDGE-BOLT POWERS WEDGE-BOLT PLUS POWERS 316 STAINLESS STEEL WEDGE-BOLT POWERS WEDGE-BOLT PLUS POWERS 316 STAINLESS STEEL WEDGE-BOLT POWERS WEDGE-BOLT PLUS POWERS 316 STAINLESS STEEL WEDGE-BOLT POWERS WEDGE-BOLT PLUS CRACKED OR UNCRACKED, POWERS WEDGE-BOLT PLUS	VARIES 300 SS 410 SS 410 SS 410 SS 316 SS STEEL VARIES VARIES 300 SS 410 SS 410 SS 410 SS 316 SS STEEL 316 SS STEEL 316 SS STEEL STEEL	1/4	72	6	2 1/8 1 1/2 2 1/2 1 3/4 1 2 1/2 1 3/4 1 1/2 2 3/8 1 1/2 1 1/2 2 1/2 2 1/2 2 1 1/2 2 3/4 2 1/4		1 3/4 1 3/4 1 3/4 1 3/4 1 3/4 1 7/8 1 1/2 1 3/8 1 3/4 1 3/4 1 3/4 1 3/4 1 3/4 1 7/8 1 1/2 2 3/8 2 3/8 2 1/8	NA	1/4 1/4 1/4 1/4 1/4 5/16 5/16 1/4 1/4 1/4 1/4 1/4 5/16 5/16 7/16 7/16 7/16 7/16 7/16	SEE FASTENER MANUFACTURER INSTRUCTIONS																																																																																																															
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